



PERMIT FOR A SOLID WASTE MANAGEMENT FACILITY
NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY – DIVISION OF WASTE
MANAGEMENT
TELEPHONE: 701-328-5166 REV. 09/21

Pursuant to Chapter 23.1-08 of the North Dakota Century Code (NDCC), (Solid Waste Management and Land Protection Act), and Article 33.1-20 of the North Dakota Administrative Code (NDAC), (Solid Waste Management Rules), and in reliance on statements and representations heretofore made by the owner or owner's representative designated below, a permit is hereby issued authorizing such Permittee (Permittee) to construct and operate a solid waste management facility at the designated location under any and all conditions.

A. Owner/Operator (Permittee):

1. **Name:** Rainbow Energy Center, LLC – Coal Creek Station
2. **Mailing Address:** 2875 3rd St. SW, Underwood, ND 58576
3. **Location Address:** 2875 3rd St. SW, Underwood, ND 58576

B. Permit Number: 0033

C. Solid Waste Management Units:

1. Special Waste Landfill – Southeast Section 16
2. Surface Impoundments – To Be Closed with Waste-In Place
 - a. Ash Pond 91 – Upstream Raise 91
 - b. Ash Pond 92 – Upstream Raise 92
 - c. Southwest Section 16 – Upstream Raise
3. Surface Impoundments
 - a. Drains Pond System
 - b. Evaporation Pond 91
 - c. Evaporation Pond 92
 - d. Evaporation Pond 93
 - e. Evaporation Pond 94

D. Location Information:

1. **General:** Sections 8, 9, 16 and 17, TWP 145N, R 82W of McLean County
2. **Permit Area:** As described in referenced documents and facility files – approximately 2,560 acres of which 615 acres are usable for solid waste activities.
3. **Latitude:** 47.388315° **Longitude:** -101.136132°

E. General Conditions:

- E.1. The Permittee of the facility is subject to the Solid Waste Management and Land Protection Act (NDCC Chapter 23.1-08), the Solid Waste Management Rules (NDAC Article 33.1-20), all other North Dakota and federal laws, rules or regulations and orders now or hereafter effected by the North Dakota Department of Environmental Quality (hereinafter the Department), and to all conditions of this permit.
- E.2. Compliance with terms of this permit does not constitute a defense to any order issued or any action brought under NDCC Chapter 23.1-08, NDAC Article 33.1-20, NDCC Chapter 23.1-04, NDAC Article 33.1-24, Sections 3013, 7003, or 3008(a) of Resource Conservation and Recovery Act (RCRA), Sections 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et. seq.) or any other law providing for protection of public health or the environment.
- E.3. Issuance of this permit does not convey property rights of any sort or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. (NDAC Section 33.1-20-02.1-06)
- E.4. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (NDAC Section 33.1-20-02.1-04)
- E.5. This permit is based on the premise that the information submitted by the Permittee is accurate and that the facility will be or has been constructed and will be operated or has been as specified in the application and all related documents. Any inaccuracies or misrepresentations found in the application may be grounds for the termination or modification of this permit. The Permittee must inform the Department of any deviation from, or changes in, the information in the application which would affect the Permittee's ability to comply with the applicable rules or permit conditions. (NDAC Section 33.1-20-02.1-07)
- E.6. The Permittee shall at all times properly operate and maintain the facility, solid waste management units, and related appurtenances which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit. (NDAC Section 33.1-20-02.1-04)
- E.7. The Permittee shall give notice to the Department of any planned physical alterations or additions to permitted solid waste management units. Any physical change in, or change in the method of the operation of, a treatment or disposal operation shall be considered to be construction, installation or establishment of a new operation. No construction, installation or establishment of a new operation shall be commenced unless the Permittee thereof shall file an application for, and receive, a permit from the Department. (NDAC Section 33.1-20-02.1-04 and NDAC Section 33.1-20-02.1-07)
- a. The Permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with

- E.11.** This permit addresses only the environmental aspects and operational procedures of the facility. It does not supersede local zoning authority or any other requirements of any political subdivision of the state. The Permittee must obtain any and all local zoning, conditional use permits, or meet any other county, township or municipal requirements prior to commencing construction and/or operation. (NDAC Section 33.1-20-02.1-06 and SFN 19269)
- E.12.** The Permittee shall design, close, maintain and operate the facility in a manner to minimize the possibility of a fire, explosion or any unplanned sudden or nonsudden release of solid waste or solid waste constituents to air, soil, groundwater or surface water which could threaten human health or the environment. (NDAC Section 33.1-20-04.1-02)

- E.13. Any entity that controls the permit holder (Permittee) agrees to accept responsibility for any remedial measures, closure and postclosure care or penalties incurred by the Permittee. For purposes of this permit, "control" means ownership or control, directly, indirectly, or through the actions of one or more persons of the power to vote 25% or more of any class of voting shares of a permit holder, or the direct or indirect power to control in any manner the election of a majority of the directors of a permit holder, or to direct the management or policies of a permit holder, whether by individuals, corporations, partnerships, trusts, or other entities or organization of any type. Within thirty (30) days of the issuance of this permit, if not previously provided with the application, or within thirty (30) days of the existence of any new controlling entity, the Permittee shall submit to the Department the name of the controlling entity, a statement signed by the controlling entity in which the controlling entity agrees to accept responsibility for any remedial measures, closure, and postclosure care or penalties incurred by the Permittee and a disclosure statement from the controlling entity containing the same information as required from permit applicants under NDCC Section 23.1-08-17. (NDCC Subsection 23.1-08-09(1))
- E.14. All personnel involved in solid waste handling and in the facility operation or monitoring must be provided a copy of this permit and shall be instructed in specific procedures to ensure compliance with the permit, the facility plans and the state rules as necessary to prevent accidents and environmental impacts. Documentation of training such as names, dates, description of instruction methods and copies of certificates awarded must be placed in the facility's operating record. (NDAC Section 33.1-20-04.1-02)
- E.15. Except as modified by conditions of this permit or future approvals from the Department, this facility and related solid waste management units and structures shall be designed, constructed, operated and closed in accordance with previous correspondence and documents contained in Departmental files pertaining to this facility and as described in the documents listed in Attachment 1, which are hereby incorporated by reference in this permit. Future submittals approved by the Department may supersede or supplement items listed in Attachment 1. (NDAC Section 33.1-20-02.1-04)
- E.16. All facility reports shall be submitted to the Department in a digital or electronic format as a searchable PDF format document unless otherwise requested. In some cases, the Department may request hard copies in addition to electronic format. Reports shall be sent to solidwaste@nd.gov.
- Recordkeeping and reporting shall be in accordance with NDAC Section 33.1-20-04.1-04 and as described in the approved Plan of Operations.
- The Permittee shall submit an annual report to the Department by March 1st of each year in accordance with NDAC Subsection 33.1-20-04.1-04(3).
- The Permittee shall submit an annual groundwater report to the Department by April 1st of each year in accordance with NDAC Subsection 33.1-20-04.1-04(4).
- E.17. The Permittee shall complete the Department's Waste Rejection Report (SFN 60120) and notify the Department within five (5) days of any wastes rejected and not accepted by the facility. (NDAC Subsection 33.1-20-04.1-02(8))

- E.18.** Within sixty (60) days of the issuance of this permit, if not already completed, the Permittee shall record a notarized affidavit with the County Recorder. The affidavit shall specify that this facility, as noted in the legal description, is permitted to accept solid wastes for disposal. This affidavit shall specify that another affidavit must be recorded upon the facility's final closure.

Upon closure, a second affidavit shall be recorded specifying any final details regarding the types of waste disposed at the facility, as well as any final details regarding the facility's location, construction, management, etc.

The Department must be provided a copy of both affidavits, certified by the County Recorder of the county in which the facility is located. The copies must be forwarded to the Department within thirty (30) days of recorded dates, or if notification has already been completed, within thirty (30) days of the permit issuance date. (NDAC Section 33.1-20-02.1-05)

F. Special Waste Landfill Specific Conditions:

- F.1.** The following wastes are prohibited from disposal at this facility:

- Regulated infectious waste;
- Used oil as a free liquid;
- Hazardous waste; and
- TENORM waste

The facility is not authorized for management of natural gas and crude oil exploration and production wastes; petroleum-contaminated wastes associated with leaking underground storage tanks; petroleum-contaminated wastes associated with releases from aboveground storage tanks; or natural gas and/or crude oil-impacted wastes associated with pipeline transportation releases.

(NDAC Subsection 33.1-20-07.1-01(2))

- F.2.** The facility is authorized only for the disposal of special waste and other wastes as identified in the permit application, Departmentally-approved facility waste acceptance plan, elsewhere in this permit, or through Departmental correspondence. The facility may accept other types of special waste upon approval from the Department. (NDAC Subsection 33.1-20-07.1-01(2))

"Special waste" means solid waste that is not a hazardous waste regulated under chapter 23.1-04 and includes waste generated from energy conversion facilities; waste from crude oil and natural gas exploration and production; waste from mineral and ore mining, beneficiation, and extraction; and waste generated by surface coal mining operations. The term does not include municipal waste or industrial waste. (NDCC Subsection 23.1-08-02(16))

- F.3.** Waste containing free liquids is not approved for transport or delivery to the facility. "Free liquid" means the liquid which separates from the solid portion of a solid waste under ambient pressure and normal, above freezing temperature. The environmental

protection agency paint filter liquids test method or visual evidence must be used to determine if a waste contains free liquid. (NDAC Subsection 33.1-20-01.1-03(32))

At minimum, visual observation of the waste at both the entry to the facility and at the working face shall be used to inspect waste arriving at the facility. The EPA Paint Filter Liquids Test (Method 9095B) protocol shall be used for all waste in which visual observation is not conclusive or if there is any question on free liquids. (NDAC Subparagraph 33.1-20-04.1-03(1)(h)(4)(n))

- F.4. All run-on or run-off must be properly controlled to avoid its concentration on or in solid waste and to minimize infiltration into the waste material. Disposal shall avoid any areas within the facility where run-on or run-off accumulates. (NDAC Subdivision 33.1-20-04.1-09(3)(d))
- F.5. Waste accepted at the facility shall not be stored, stockpiled or placed anywhere on the facility other than the approved disposal area. (NDAC Subdivision 33.1-20-04.1-03(1)(b))
- F.6. The Permittee shall submit quarterly reports to the Department by the last day of the following month (January 31st, April 30th, July 31st and October 31st). The report shall include a summary of the past quarter's construction activity, operations and inspections of the facility. At a minimum, the following information shall be included:
- a. Tonnage accepted for the quarter
 - b. Rejected waste loads
 - c. Rainfall totals for events equal to or greater than the 25-year, 24-hour storm event
 - d. Map, including location and size (in acres) of the:
 - 1. Operating area
 - 2. Areas with interim cover
 - 3. Areas with final cover
 - e. Current construction projects and upcoming construction projects for both new construction and closure projects
 - f. Leachate head above liner in the landfill and amount of leachate generated
 - g. Amount of freeboard in the surface impoundment(s)
 - h. Condition of the pump(s) for leachate management
 - i. Summary of training conducted
- (NDAC Section 33.1-20-02.1-04)
- F.7. The facility shall be operated in full accordance with the approved plan of operation and the waste screening provisions. (NDAC Section 33.1-20-04.1-03)

- F.8.** The Permittee shall conduct self-inspections in accordance with the approved inspection procedures. (NDAC Subsection 33.1-20-04.1-02(8))
- F.9.** During excavation and construction of any disposal unit, surface impoundment, or other solid waste unit, any layers of materials with a higher hydraulic conductivity, including, but not limited to, areas of sand, silty sand, gravel and/or lignite over eight (8.0) inches in thickness, or any areas where in-situ clay-rich soils underlying the base of the solid waste unit are less than three (3) feet thick, the base shall be over-excavated and replaced with at least three (3) feet of carefully compacted clay-rich soil to establish a geologic barrier to leachate migration. At minimum, sand or lignite zones less than eight (8.0) inches in thickness shall be scarified, mixed with in-situ shale or clay-rich sediments to a depth of 12 inches, visually classified, recompact and tested as described in Section IV, Subbase Preparation, of the Department's *Guideline 5 – Quality Assurance for Construction of Landfill and Surface Impoundment Liners, Caps and Leachate Collection Systems* (see attachment 2). Replacement of the zones of higher hydraulic conductivity and the placement of compacted clay shall be addressed in the final quality assurance/quality control report to the Department. (NDAC Subsection 33.1-20-04.1-01(2))
- F.10.** On all areas of the landfill where final cover or additional solid waste will not be placed within six (6) months, eight (8) inches or more of compacted clay-rich soil material, similar material, or a synthetic cover must be placed to prevent ponding of surface water, to minimize infiltration of surface water, and to control windblown dust. (NDAC Subsection 33.1-20-07.1-01(1))
- F.11.** An adequate supply of suitable cover material must be available, which, if necessary, must be stockpiled and protected for winter operation. (NDAC Subdivision 33.1-20-04.1-09(2)(c))
- F.12.** All earthen material must be maintained on-site (to be used for all construction, cover, closure and revegetation activities) unless removal from the site is authorized by the Department. (NDAC Subdivision 33.1-20-04.1-09(2)(k))
- F.13.** Suitable plant growth material (SPGM) topsoil and SPGM subsoil shall be used for site closure. Any extra material shall be stored in approved areas for use in site maintenance and closure repair. All SPGM shall be replaced upon site or area reclamation. (NDAC Subdivision 33.1-20-04.1-09(2)(f))

G. Facility Specific Conditions:

- G.1.** The facility is approved to accept the following wastes:
- Coal combustion residuals from Coal Creek Station
 - Coal combustion residuals from Spiritwood Energy Plant
 - Inert Waste from Coal Creek Station
 - Other wastes identified in the facility's approved waste acceptance plan
- (NDAC Subsection 33.1-20-07.1-01(2))
- G.2.** The Permittee shall obtain and analyze a representative sample of leachate/contact

water contained in any leachate collection or accumulation or system, sump and/or other accumulation area, any surface impoundment and stormwater pond at the same frequency and for the same parameters as in the facility's approved groundwater monitoring program. The analytical results shall be submitted to the Department with the groundwater monitoring report. (NDAC Paragraph 33.1-20-04.1-09(3)(e)(2))

- G.3.** Sequential closure of solid waste disposal units shall be implemented as described in the approved closure plan. (NDAC Subdivision 33.1-20-04.1-03(1)(g), NDAC Subsection 33.1-20-04.1-05(2), and NDAC Subdivision 33.1-20-04.1-05(5)(d))

The largest approved open area is 261.7 acres before sequential partial closure must be initiated. (NDAC Subdivision 33.1-20-04.1-05(5)(a))

- G.4.** No new area of the landfill final cover, including, but not limited to support berms and the outer slopes of any drainage control berm/swale, shall be greater than the 25% (4:1) maximum slope allowed by NDAC Paragraph 33.1-20-04.1-09(4)(b)(3).

H. Surface Impoundment Specific Conditions:

- H.1.** All surface impoundments shall be constructed, operated, maintained and inspected in accordance with NDAC Chapter 33.1-20-08.1.

All surface impoundments shall be maintained and inspected to ensure orderly operation and ensure adequate storage capacity, and two (2) foot of freeboard must be maintained. After significant runoff events, prior to winter freeze-up, and/or in anticipation of a period of heavy precipitation, the surface impoundment's capacity shall be restored as soon as practicable to ensure at least a 25-year, 24-hour stormwater management capacity. (NDAC Paragraph 33.1-20-04.1-09(2)(3)(a))

Upstream Raise 91 and Upstream Raise 92 shall be protected from surface water run-on from adjacent areas. (NDAC Subdivision 33.1-20-04.1-09(3)(d))

Should questions or issues arise, the Permittee shall contact the North Dakota Department of Environmental Quality at 701-328-5166.

In consideration of information provided regarding the facility and its operation and in consideration of the conditions above, the North Dakota Department of Environmental Quality hereby issues a permit to Rainbow Energy Center, LLC's Coal Creek Station.

This permit is effective as of , 2021 and shall remain in effect until July 7, 2025, unless modified, superseded, or revoked under Section 33.1-20-02.1-07 NDAC or continued in accordance with Section 33.1-20-02.1-08 NDAC.

Charles R. Hyatt, Director
Division of Waste Management

Date

Attachments:

Attachment 1: Historical Document List

Attachment 2: Guideline 5

DRAFT

Attachment 1

Historical Documents

August 19 and 20, 2021	"Modification of North Dakota Solid Waste Permit 0033", dated August 19, 2020, prepared by Rainbow Energy Center, LLC, and received by the Department on August 19 and 20, 2021.
April 13, 2015	"SP-033 Permit Modification Response Letter, Great River Energy, Coal Creek Station, Underwood, ND, April 13, 2015," received by the Department on April 13, 2015.
February 19, 2015	"Permit Modification Document (Ash Pond 91 Upstream Raise) Permit No. SP-033, Great River Energy, Coal Creek Station, Underwood, ND, February 2015," received by the Department on February 19, 2015.
	"Permit Modification Document (Drains Pond Expansion) Permit No. SP-033, Great River Energy, Coal Creek Station, Underwood, ND, February 2015," received by the Department on February 19, 2015.
January 14, 2013	"Permit Modification Document Permit No. SP-033, Great River Energy, Coal Creek Station, Underwood, ND, December 2012," received by the Department on January 14, 2013.
April 12, 2006	"Construction Quality Assurance Guidelines for Phase II Southwest Section 16 Upstream Raise Expansion Construction, Great River Energy - Coal Creek Station, Underwood, ND," dated April 12, 2006 and prepared by Golder Associates, Inc., Lakewood, CO.
October 23, 2007	"Work Plan for Monitoring Well Installation for Permit Nos. SP-033 & SP-091, Great River Energy - Coal Creek Station, Underwood, ND," dated October 23, 2007 and prepared by Golder Associates, Inc., Lakewood, CO.
January 7, 2002	"Revised Water Quality Monitoring Plan, Great River Energy - Coal Creek Station, Underwood, ND," dated January 7, 2002 and prepared by Golder Associates, Inc., Lakewood, CO.
August 4, 1997	"Application for a Solid Waste Management Facility Permit - SFN 19269 (04/95), North Dakota State Department of Health," Cooperative Power - Coal Creek Station, Underwood, ND, dated August 4, 1997 and prepared by Cooperative Power Association, Eden Prairie, MN.